

BLOCK

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9657

9727 ✓

Arthur Cronquist
New York Botanical
Garden
New York 58, N.Y.
U.S.A.

9657 October 13, 1962

Open, brushy, felsitic
southwest slopes 37
miles southeast of Oaxaca,
state of Oaxaca, Mexico,
5500 feet elevation.

Shrub 2-3 m. tall. Heads
melliferous, sunflower yellow,
with mostly 8 rays.

Plants abundant. Ray achenes
sterile, with reduced pappus.

Disk achenes hairy, with
a pappus of 2 long, slender
scales and several short,
relatively broader ones.

Viguiera eriophora Greenm.

U. 580

(6) ✓

Helianthus 8 rays

9658 October 13, 1962.
Same place as 9652. Shrub
about 2 m. tall, with milky
juice. Heads a peculiar
shade of orange, with
about 20-25 rays.
Plants seen occasionally
from here ~~south~~ east
well into Chiapas.

Liabum andrieuxii (DC.) Benth.
+ Hook.

orange-20-25 rays 2 m.
Liabum (5) ✓

9659 - October 13, 1962.
Same place as 9657.
Flowers white or very
faintly lavender.

Florestina pedata (Cav.) Cass.



white. Cav.
Synonym of *Florestina*? (10)

9660 - October 13, 1962
Roadside weed along the
Pan-American highway
in small-forest region
dominated by *Lysiloma*,
Bursera, *Euphorbia*, and
other deciduous angiosperms,
97 miles southeast of
Oaxaca and 54 miles north-
west of Tehuantepec, state
of Oaxaca, Mexico. Elevation
about 3100 feet. Involucre
purplish. Flowers lavender.
Chromosome number det. by
B. L. Turner as $n=12$.

Florestina latifolia (DC.) Rydb. ✓

Narrow-leaved *Florestina* (7)

9261 - October 13, 1962.

Same place as 9660.

Heads rather light yellow,
tending to nod at anthesis,
later becoming erect.

Rays 7-10, most commonly 8,
Chromosome number det. by
B. L. Turner $2n = ca. 17$.

neutral, sparsely.

Disk achenes strongly flattened
but scarcely winged, with a
pappus of 2 paleaceous awns.

Simsia amplexicaulis (Cav.)

Pers.

7-10

annual Helianthus *Simsia*? (10)

9662 - October 13, 1962.

Same place as 9660.

plants ill-scented

Heads orange-yellow,

typically in clusters of 6,
the 5 outer ones with 2 rays
each, on the outer side, the
central one rayless.

Syncephalanthia decipiens
Bartl.

Tagetes (9)

9663 - October 13, 1962

In thorny scrub woods
on the summit of the
Coastal hills, 2 miles
east of Salina Cruz, along
the road to La Ventosa, state
of Oaxaca, Mexico.

Pappus none.

Rays 5 or occasionally only 4,
the upper side white with a
yellow base, the lower side
pale greenish. Disk flowers
sterile.

Tragoceras flavicomum DC.

Zinnia (10)

9664. October 13, 1962

Same place as 9663

Disk yellow. Rays ochro-
leucous, usually 3, some-
times only 2.

Friday? (9)

9665. Delicate, 1963
Disk orange, rays 3-8,
with yellow tips and
orange base - Same place as 9663

Melampodium linearilobum DC.

1966 - October 14, 1962
Bunch along the roadside
of tropical deciduous
forest region. Pan American
highway, 3 miles west of
San Antonio and 2.5 miles
east of the Chiapas-Guatemala
border, state of Chiapas,
Mexico. Elevation about
3000 feet. Shrubs 2-3 m.
tall. Heads white, with
3-5 rays.

Montanoa xanthifolia Sch.-Bip.

3-9 rays

Montanoa

(10)

7667 - October 10, 1962

In thin soil on steep,
rocky, shaded banks
along the roadside in
tropical ~~subtropical~~
deciduous forest region,
Panamanian highland,
3 miles west of Las Comatas,
about 5 miles east of the
Chiriqui-Cayman border,
state of Chiriqui, Panama,
elevation about 1000
feet. Flowers white.

Carrizania tenuiflora DC.

2563 - October 4, 1962
Open, rocky slopes along
roadside in *Croton*
deciduous forest region.
Pan-American Highway, 2.5
miles west of San Miguel and
2 miles east of San Miguel -
Yague border, state of
Chiapas, Mexico, elevation
about 2300 feet.

Coarse herbs 1-2 m. tall,
single stemmed at the
base, branched above.
Dark orange. Rays
yellow-orange, mostly 8-13.

Tithonia rotundifolia (Mill.)

Blake

8-13 or 1-2 m.

✓

~~Fls~~ *Tithonia*

(3)

9669 October 14, 1962
Same place as 9668.

Stem 1.5-3 m. tall.
Head yellow, with
with 34-41 rays, these
fertile. (Achenes flattened) those
of the rays narrowly triquetrous,
slightly winged distally along
the outer edge, turning the
current into the solitary
pappus-awn, a few achenes
with a shorter awn on the
outer edge, the others with
only one awn.

10. 13. 3.

9470 - *Asplenium* (Moss)
Lycopodium or PCB.

Herb about 6-15 dm. tall
Heads yellow, the caps,
about 13, long pointed

Philactis nelsonii (Greenm.) Blake

ca 13 caps, heads.

Herb about 6-15 dm.

(70)

9671 - October 14, 1962.

Edge of woods (tropical
deciduous forest) along the
road. Pan American highway,
about 2 miles west of
Las Américas and 4 miles east of
the Chiapas-Cruzoblanco
state of Chiapas, Mexico.
Herbs about 20 cm tall.
Stems 2-4 cm tall, heads
yellow, with white rays.
These pistillate and apparently
fertile, with 6 to 8 achenes
achenes. Pappus pair of awns.

Verbesina steyermarkii Standl.
dupl. det. James Coleman

2522 - October 14, 1962
Spectacular Cecropia thickets
along the Pan-American
highway, 11 miles east of
Los Cuatros, state of
Chiapas, Mexico. Elevation
about 2000 feet. Soft
shrubs 2-2.5 m. tall,
with ringed stems,
these with stout but
nearly herbaceous upper
parts, glaucous distally.
Fls. white, with
mostly 5 rays, sometimes
only 4.

Verbesina gigantoides Robins.

Mexico (2)

9673 - October 14, 1962
Brushy place along the
road in tropical deciduous
forest region; Pan American
highway 4 miles east of
Ocozacoautla, state of
Chiapas. Elevation
about 2500 feet.

Stems 8-15 dm tall.

Stems white, or faintly
~~green~~ but ochroleucous.

Heads with 1 or 2 inconspicuous
rays and 5-7 disk flowers

Calea zacatechichi Schlecht.

74. 215.4
On brush on the north
slope of the same mountain
in the same zone along
the Pan American highway
about 23 road miles west
of San Cristobal de las Casas,
state of Chiapas, Mexico.
Elevation about 4600 feet.
Shrubs 2-3 m. tall. Heads
yellow, with mostly 12 or 13
rays.

Tithonia diversifolia (Hemsl.)
Gray

215.4
4600

Tithonia diversifolia (Hemsl.) Gray

9675 - October 15, 1962.
In brush along the roadside
in oak-forest zone on
limestone mountains,
Pan-American highway,
about 1/2 road miles east
of Tuxtla Gutierrez, state
of Chiapas, Mexico.
Elevation about 3500 ft.
Sprawling shrub 2-3 m.
tall. Heads yellow, with
mostly 5 rays.

Coreopsis mutica DC.

~~9675~~ 9676 - October 15, 1962
same place as 9675.

Shrubs about 2 m. tall.
Involucres all post-anthesis.
Involucral bracts with
conspicuous, scarious
pale yellow-greenish tips.
Receptacular bracts with
inserted yellow tips.

Perymenium nelsonii Robert Greenm.

1000 specimens

2000 (9)

9677 - October 15, 1962
Roadside weed in cab (about
3000) in limestone mountains
along the Pan American
highway, about 20 road miles
east of Tuxtla Gutierrez,
State of Chiapas, Mexico.
Elevation about 3500 feet.
Rays about 6-7, pale
pale yellow on both
sides, sometimes tinged
with salmon.

Zinnia peruviana (L.) L.

Zinnia (10)

1935 - ...
... along the ...
... tropical ...
... 15 ...
...
... about 32 ...
Arborescent - shrub 6.5 m. tall.
... 2 rays.

Verbesina sp. aff. *trilobata* Rob. &
Greenm.

Found along the roadside in
tropical deciduous forest
along the highway 4 miles west of
Cozacoatlán, state of
Chiapas, Mexico. Elevation
about 2300 feet. Shrub
about 2 m. tall, leaves
yellow. Rays 2-3 after
anthesis, involucre
involucres prostrate and
peltate, their achenes trigonous,
3-angled. Disk achenes flattened
but not winged, with a
pappus of 2 awns.

Zexmenia elegans Sch-Bip.

2
Spaced
spaced

July 23 - Station 16.5 mi.
Cumbria, Pennsylvania
by the station on the
highway, 23 miles west
of Harrisburg, State of
Pennsylvania. Elevation
about 1000 feet. Plants
about 1000 feet tall,
and are less densely
packed than those of
the lower level. Receptacle
chaffy, with slender pales.

Ageratum paleaceum (Gay) Hemsl.

1601

15289.5

Ageratum (11)

9621 - October 7, 1962
Thorny forest with Acacia,
Cacti, and ~~Bursera~~ Bursera,
35 miles west of Tehuacan
along the Pan American
highway - state of Oaxaca,
Mexico. Elevation about 1000
feet. Shrubs about 1 m tall.
Fls. yellow.

Trixis megalophylla Greenm.

1952 - Oct 17, 1952
Open grass in dry
soil forest with
Kunzea and Acacia,
in patches along the
Pan American highway about
38 miles west of Tehuacan,
State of Oaxaca, Mexico
Elevation about 1500 feet.

Annual herb
Roughly - red. Fls. white
yellow, anthers yellow.
Stems only 3 Ray pappus of
2 long awns. Disk flowers only
1 or 2, the pappus of 0-3 achenes.

Pectis linifolia L.

✓

Eleusine indica (L.) Gaertn.

9633 - October 17, 1962

Same place 9632.

Heads yellow, with typically
3 rays, Rayless.

Dark flowers with a papery
inner disk, numerous,
bristly.

Pectis saturejoides (Mill.)

Sch. Bip.

Pectis? (6)

1964 - October 17, 1962

Lawsonia and hillsides

just below the pine zone,
along the Pan American
highway, 42 miles north
west of Toluca

state of Mexico
elevation about 2000 feet
shrub, c. 6-5
m tall, with stems
woody, thin

leaves simple, alternate,
with mostly 13-17 ⁽¹⁰⁻¹⁸⁾ rays

petioles hollow, slightly
inflated, Ray's
acorns sterile, exapert. Disk
acorns hairy, with a pappus of 2
awns and several shorter, firm
scales that are connate below
and separate above.

Tithonia pedunculata Cronq.

✓ 1 HOLOTYPE
7-5 5 YP

9635 - October 17, 1962.

Same place as 9634.

Scrambling, lignose, semi-woody. Herbage with mostly 8 rays.

Bidens squarrosa HBK.

✓

Bidens

(10)

H 9566 - October 17, 1952
 Edge of the very small
 forest, with Legumes,
 Cacti, and Bursera, along
 the Pan American highway,
 about 78 miles northwest
 of Tehuantepec and 13 miles
 southwest of Papaca,
 state of Oaxaca, Mexico.
 Elevation about 2300 feet.
 Shrub about 1.5 m tall.
 Heads yellow, with mostly
 3 rays. Rays fertile.
 Achenes winged. Pappus a
 pair of awns.

Verbesina abscondita Klatt

15532
 7.3 m tall
 1.9 m tall ✓

(10)

9687 - October 17, 1962

Open, savanna-like

shrub forest along the
Pan-American Highway

93 miles northwest of
Tehuacan, and 59 miles

southeast of Oaxaca, state
of Oaxaca, Mexico.

Flowering about 3200 ft.

Plants 3-15 m tall

Shrubby at the base

and becoming brittle

at top. Heads yellow with

10-16 (typically 13) rays

Simsia Grayi Blake, vel aff.

Sim. sp. (5)

9688 - October 17, 1962

Bushy savanna with
grasses and small trees, on
hillsides along the
Pan American highway
about 36 miles southeast
of Cayana, state of Cayana,
Mexico. Elevation about
5300 feet. Shrub about 1
m. tall. Heads pale ochro-
aceous or almost greenish,
with about 8 short rays.
Fls. fertile, with *Triglochin*
schems. Rich achenes
thickened but winged. Pappus
of 2 fragile awns.

Verbesina mollis HBK.

Dupl. det. James Coleman ✓

Verbesina

9687 - October 17, 1962

Weed along clear roadside
in wooded savanna region
along the Pan-American
highway about 36 miles
southeast of Oaxaca, state
of Oaxaca, Mexico. Elevation
about 5300 feet. Heads
dull reddish.

Dysodia porophylla Cav.

9687 (7)

2290. October 15, 1963
Limestone cliffs
along the Pan American
highway, 5 road miles
northwest of Tamaquito, and
about 100 miles northwest
of Toluca, State of Mexico.
Shrub. Leaves have
serrated, very hairy
undersides, with
to 1/2 inch.

Shrub up to about 1 or 1.5 m.
tall, with shiny leaves
and pale pink-lavender flowers.

glutinosus

Stevia lucida Lag.



Stevia (6)

.....

9691. October 18, 1952.
Shrubby climber along
roadside in dry, brushy
vegetation type, along the
Pan-American highway 5 road
miles northwest of
Tanzanapan, and about 100
miles northwest of Oaxaca,
state of Oaxaca, Mexico.
Elevation about 6000 ft.
Flowers clustered on a
short, terminal, upright
cyme of the axils of
small, lanceolate, pubescent
bracts. Flowers white.

Piqueria trinervia Cav.

Flowers white. Piqueria (6)

October 18, 1962
Shrub in dry wash in zone
of xerophytic, brushy
vegetation along the Pan-
ama road highway, 5 road
miles northwest of
Tamazulapan, and about 100
miles northwest of Oaxaca,
state of Oaxaca, Mexico.
Elevation about 6000 feet.
Shrubs 3-4 m. tall with
stems up to 1 dm. thick.
Flowers white.

Baccharis glutinosa Pers.

✓

Baccharis (C)

9693 - October 18, 1962.

Same place as 9691.

Plants becoming woody
at the base, yrs to about
1.5 m tall. Leaves glutinous.
Fls yellow.

Gymnosperma glutinosa (Spreng)
Less

7. *Viguiera* (L.) DC. 175
Climbing roadside banks
of *X* in the
low by *agave* *agave*
to Pan American highway,
2000 miles northwest of
Tehuacan, and about
100 miles northwest of
Oaxaca, state of Oaxaca,
Mexico. *Glauca*, about
1000 feet. Plants several-
stemmed, stems fibrous,
erect caudex. Heads yellow,
rayed, mostly about 18,
sometimes up to 13, their
achenes sterile, with reduced
pappus. Disk achenes thickened,
hairy, with a pappus of 2
awn scales and several shorter,
pinnate-ciliate scales.

Viguiera cordifolia Gray, sens.
lat.

Viguiera (6)

9665 - October 18, 1962

Bushy slopes in zone of
a mesophytic brushy vegetation
along the San Antonio
River. The plants are
shrubs mostly about 1.5 m.
tall. Heads white.

Eupatorium tomentellum Schrad.

(6)

922 - October 18, 1962.
Same place as 9297.
Stems 2 - 2.5 m. tall,
pubescent or slightly
retrovillous, some plants
anthers, others with 1-5
short rays per head.
Pappus none

Zaiuzania pringlei Greenm.

Mercurialis (1)

October 18, 1962

In subtropical deciduous forest with several spp. of *Bumelia*, along the Pan American highway about 17 road miles ~~west~~ southeast of Dallas and about 3 miles southeast of Petracingo, state of Puebla, Mexico.

Elevation about 4600 feet. Plants with the characteristic odor of *Poroporphyrum*. Involucres dull reddish brown in middle, pale bluish glaucous above.

Poroporphyrum (4)

October 18, 1952
Edge of thin ever forest,
along roadside near
Pan-American highway
11 miles S. of
Agua de Matamoros,
State of Puebla, Mexico.
Elevation about 3500 feet.
Shrub 15-30 tall. Disk
yellow, rays white.
Involucres 13, sometimes
14-15.

Montanoa grandiflora (DC.)
Sch.-Bip.

1952
10/18/52

2000 - October 19, 1962
Open grassy area on grassy
hillside, in transition
zone between wet forest type
and tropical deciduous
forest, about 8 road miles
south of Toluca, Mexico,
state of Mexico, Mexico.
Elevation about 4000 feet.
Disk corolla light yellow
the styles more conspicuously
yellow.

Barrroetia pavonii Gray

1952 - October 19, 1952
 on steep and rocky hillsides
 on hillside at the
 lower edge of the pine-wood
 zone, along the highway
 about 21 road miles south
 of Chilpancingo, state of
 Guerrero, Mexico. Shrub
 about 2-3 m. tall. Leaves
 1-2 m. high. Same form,
 possibly *Verbesina* ^{*pistillata*}
 but on soil [^] *Verbesina*

Verbesina sp. aff. *V. nelsonii*
 Rob. & Greenm.

v

Verbesina II

7701 - October 20, 1961

Northwest-facing banks along
the old road cut in the
pine-oak zone in the mountains
about 1/2 road mile north
of Acapulco and 20 miles
south of Jalisco state
of Guerrero, Mexico

Elevation about 2500 feet.
"Waxy" and thick white "flange"
about 5-7 lobed. Pappus
of 1-3 fragile awns and a
minute, irregular, serrate
crown.

Microspermum
memulariaefolium Lag.

October 20, 1952
In brush along a small
stream in the pine-oak
zone in the mountains about
62 road miles north of
Carpule and 20 miles
south of Tzipancingo, state
of Chiapas, Mexico.

Altitude about 2500 feet.

Plants becoming numerous
in early bloom. Shrub-
like base, producing
several stems, not much
branched main branches,
which are ramble so much
as to often sitting at
the lower nodes. Pigeon-like
with 4-7 rays. Leaves
opposite or partly ternate.
Ray neutral. Disk-achenes thickened,
obscurely quadrangular, - papery.

Hymenostephium guatemalense (18) (Rob. & Greenm.) 20 KC

1707 - October 20, 1962
Dry slope, mostly facing
phyllitic cliffs in the
pine-oak zone in the
mountains about 62 road
miles north of Escapulap
and 20 miles south of
Chilpancingo, state of
Guerrero, Mexico.
Elevation about 2500 feet.
Stems much branched,
becoming stout and woody
near base. Leaves
oblong, glaucous. Heads
sessile, white.

Podophania dissecta (H. & A.) Rob.

F. ...

October 20, 1962
In bunch ~~long~~ on
with shape in ~~...~~
...
... pale yellowish.
Ray 4 or 5, white, sterile.
Pappus none. Achenes
with thickened, involute,
irregular marginal wings.

Coreocarpus cronquistii Sheri.
Type collection.

(4)

9705 - October 20, 1962
Semi-open slopes in pine-
oak forest in the mountains
along the highway about 62
road miles north of Acapulco,
and 2 miles south of
Juchitancillo, state of Guerrero
Mexico. Elevation about
2535 feet.

Plants wholly herbaceous,
from a fibrous-crested
caudex, and up to 1 m.
tall, or becoming shrubby
and up to 1.5 m. tall.
Flowers bright purple.

Vernonia capreaefolia
(Sch.-Bip.) Gleason

2000 - Oct 1st 2000
Lignum 1.5 m tall
Branches mostly 1-1.5 m tall
Bark white to light.

Desmanthodium fruticosum
Greenm.

✓

⑥ *Desmanthodium*

9707 - October 10, 1962
Open, north slopes,
with low, scrub vegetation,
grazed and with much
lignin, probably origin-
ally savanna, at the
place 8 road miles south
of Tepic, Jalisco, state of
Mexico.
Elevation about 4000 feet
Shrub about 1 m tall,
with small, dense
white flowers.

Brickellia veronicaefolia
(HBK.) Gray

Brickellia (7)

2205 ~~7~~ ~~October 20~~
1968. Same place as 2207.
Flowers reddish

Pappus none. Ray flowers
inconspicuous, neutral,
achenes very broad and flat,
but not winged.

Simsia sanguinea Gray, vel aff.

Vernonia ? (1)

9709 - October 20, 1962,
Same place as 9707.
Stems about 1-1.5 m. tall.
Flowers white.
A single head has 1 disk
flower and 1 inconspicuous
ray flower. Pappus scales
10, purple-dotted, some of
them much shorter than
below.

Calea pringlei Rob.

✓

(3)

200 October 20, 1960
Luzon, Philippines
Mount Apo National Park
5 km. N. Antheas
Guller.

Guardiola mexicana Humb. &
Bonpl.

✓

9711 - October 2, 1952
steep, brushy, limestone
slopes in oak forest 2 mi.
Sierra Madre del Sur,
11 road northwest of
Chilpancingo, state of
Morelos, Mexico. Elevation
about 5000 ft. Shrub
about 3 m tall.
Herb yellow, the cap mostly
about 18. sometimes as
as 17. Rays pectinate and
apparently fertile. Young achenes
feathered but ~~apparently~~
not winged. Pappus 1/2
deciduous achenes.

Verbosina olivacea Klatt
dupl. det. James Coleman

Montana uncinata Sch. Bip.
Large plant up to 10 ft. flowers
white slender stems up to
1/2 in. tall. Seed yellow.
Kans. white, mostly
white. Numerous. Flowers up
to 1/2 in. tall.

Montana uncinata Sch. Bip.



7717 - *Viguiera* sp. 1942
 Cal. forest zone in limestone
 region, only lower trees
 tall, about 10 m.
 with most of the remaining
 part of the forest
 destroyed about 50 years.
 Shrub about 2 m. tall.
 Heads yellow. Rays 6-8
 after 12. Unilocular
 fruit, 2-3 mm. diam.
 Rays neutral, with reduced pappus
 Disk actines hairy, with 5 pappus
 of 2 broad, pale sinus arms and
 several shorter, fringed scales.

Viguiera sphaerocephala (DC.)
 Hemsl.

(faint handwritten notes)

Oct 21, 1962
High, east-facing slopes,
in open grassy
area, near road, Sierra
Madre Nat. Park, about 10
miles west of
Chico, state of
New Mexico. Elevation
about 5400 ft. Plant up
to about 1 m. tall, simple-
stemmed, but branched
near the base of grazed.
Disk - flowers white at
maturity, becoming
red-purple in age. Rays
dark red-purple. 5-10,
often 6.

Sinsia sanguinea Gray ✓

Helianthus ()

9715 - October 31, 1960.

Same place as 9714.

Plant ~~several~~ single - stems

Heads purple. Rare here.

Stem (1)

9716 - October 21, 1962
Slope, calcareous, southeast
slope with pines, palms,
Quercus, oak and pines;
Sierra Madre del Sur,
about 9 road miles west
of Tepic, state of
Jalisco, Mexico. Elevation
about 5500 feet. Shrubs
2-4 m tall. Heads yellow,
with typically 6 rays,
and pistillate and ~~approximately~~
sterile. Pappus none.

Zaluzania montagnacfolia
Sch. Bip.
(*Z. asperima* Sch. Bip.)

✓

to the third camp. (9)

9717 - Guatemala 21, 1962
Brush along the roadside
in a valley in the foot-
hills of the Sierra Madre
del Sur, about 7 road miles
west of the passage, state
of Guatemala, Mexico.

Elevation about 4700 feet.
Soil, sometimes scrambling
shrubs up to about 1.5 m.
tall. Bushy areas, the rays
deep orange-red, mostly
about 21.

Zexmenia crocea Gray

✓

(8)

9718 - October 21, 1962,
Atlix, Calcahucan,
southern east slope over-
looking the north end of
Chilpancingo, state of
Guerrero, Mexico. Altitude
about 4700 feet.

Shrub 2-3 m. tall.
Heads discoid, white.

Zaluzania pringlei Greenm.

Melastomaceae (8)

9700. October 20, 1941
Wet meadow in broad
high valley 20 miles west
of Talaca, State of Mexico,
Mexico. Elevation 7000 ft.
Stems mostly solitary,
leaves yellow, much
5-6 rays.

Bidens triplinervia HBK.

9710 - ~~Stevia~~ ~~hirsuta~~
Sunny roadside bush
in pine forest ~~at~~
40 miles west of Toluca,
state of Mexico.
Flowers 800 feet.
Stems mostly solitary.
Flowers pink.

Stevia hirsuta DC.

Stevia (10)

9721 - October 24
Weld along the roadside
in Oak-Ipomoea zone, 11
~~1/2~~ miles northwest of
- Itacurro, state of
Michoacan, Mexico.

Herb 6000 feet.
Plants variable in size, up
to about 1 m. tall. Heads
bright dark orange-red.
Ray $5 - \frac{21}{13}$, depending on
the vigor of the plant.

Zinnia elegans Jacq.

bright
red

Zinnia

9722 - collected 4.1962
Sunny places in oak-savanna
region about 11 miles
northwest of Zitacuaro,
state of Michoacan, Mexico.
Elevation about 6000 ft.
Slender shrubs with
1-1.5 m tall. Heads yellow,
with mostly 8 rays, three
fertile, with trigonous ach-
enes bearing a long awn on the
inner angle and a short tooth
on each of the 2 outer angles.
Disk achenes flattened, 2-awned,
winged along the inner angle.

Zexmenia ceanothifolia (Willd.)
Sch.-Bip.

Helianthus

9723 - October 24, 1962

Same place as 9722.

Coarse shrubs 3-4 m. tall.

Heads yellow, with
usually about 13 rays,
these neutral, with reduced
pappus.

Viguiera maculata (Bradee) Blake



Yuma, October 24, 1962
In open, second-growth
on forest land, on
lateritic soil, 12 miles
east of Phoenix state
of Maricopa, Arizona
Elevation about 6000 feet.
Plant perennial from
stem branched or becoming
with sparse, annual, aerial
stems 1-3 m. tall, and
about 3 cm thick at
base, lower leaves same
divisions. Heads yellow
with mostly 5 rays.

Senecio heracleifolius Hemsl.

Senecio (OK) 1962!!

9775 - October 15, 1962
Brush, northeast slope
in oak zone, 5 miles
north of Paterson,
State of Michigan
elevation 630 feet
+ flowers dull white

Archibaccharis serratifolia
(HBK.) Blake

①

27.6.1925
Same place as 25.
Flowers bright white

Eupatorium choricephalum
Robins.

Eupatorium

9727 October 25, 1962
open, grassy, grazed pine
grove, 10 miles north of
Orizaba, Veracruz state of
Veracruz, Mexico.
Elevation about 7000 feet
with oak. Very much
shaded by ~~oaks~~ *Quercus* &
juniper.

Cosmos scabrosoides HBK.

... .. 2-3 in -
... ..
... .. 4

... ..

9731.
... ..
47

... ..
... ..
... ..
... .. 4500

... ..
... ..
... ..
... ..

15119 - *Scapulus*
132 El. *Scapulus* (20)
158 *Scapulus* 300
100 *Scapulus* 700
100 *Scapulus* 200
100 *Scapulus* 200

16485 *Scapulus*
16539 - *Scapulus*
553 *Scapulus*

Scapulus
Scapulus
Scapulus
Scapulus

632 - ... 6.00

Huajip...

763 - P. ...

777, 4 ...

842 - ...

849.0 ...

...

...

75 - ...

78 - ...

796.3

16000 - ...

1.000

14963 at Tehuantepec
100' alt.

15041 Tacotalpa

267'
15053 - viscidum
2000'

055.5 Montanosa

588 in umbra

15117. ~~Oryzopsis~~

Oryzopsis

1207, Eupat. E-15 Am.
33W

15138-8 at Tuxtla
1750'

15192 at San Cristobal
6700'

215.1 at P. Chancin

221.8 at pit

23.4"

235. at Chiapa

38.5 - 1st 00' at bridge

204.4 at Tuxtla 1700 + pit

15454 - Tehuantepec

85.7 600' - Buena

~~7~~

89.0 1000' - Trilap

97.0 La Reforma

15508

15526.7 Bajío El Camarón

21 m put

558.7 - 7 mm - Tototapan

605.5 at Cadena

605 - 507

352
352
68

266.6

3975 at La Reforma
 1106.5 at La Reforma
 266.6



